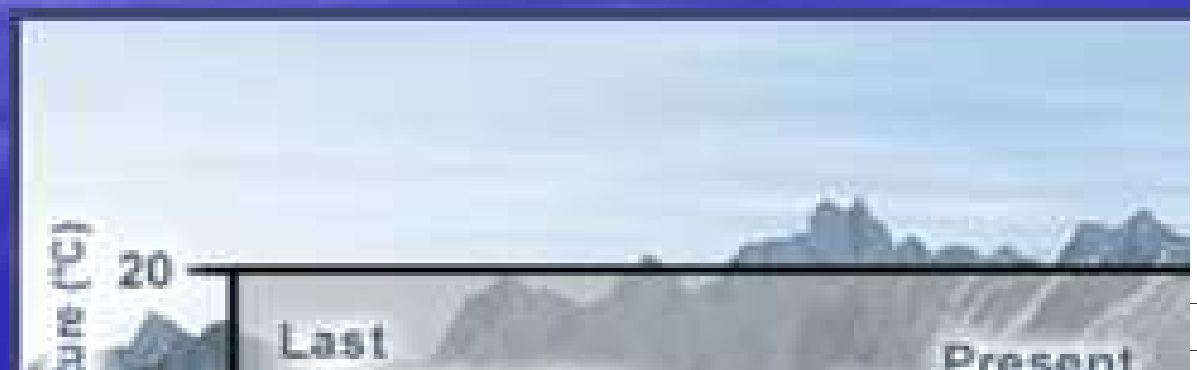


GLOBAL



What

Global Warming: Global warming refers to the average increase in the Earth's temperature, which in turn causes changes in climate. A warmer Earth may lead to changes in rainfall patterns, a rise in sea level, and a wide range of impacts on plants, wildlife, and humans. When scientists talk about the issue of climate change, their concern is about global warming caused by human activities.



CLIMATE WARMING

What is it?

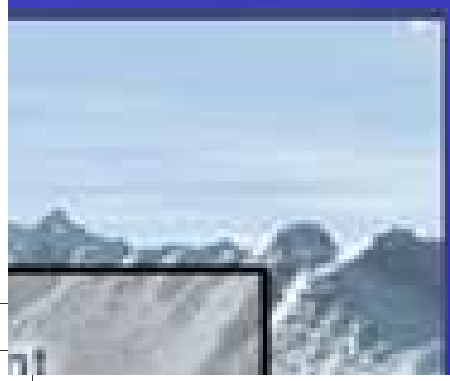



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Earth has warmed by about 1° F over the past 100 years. But why? And how? Well, scientists are not exactly sure. The Earth could be getting warmer on its own, but many of the world's leading climate scientists think that things people do are helping to make the Earth warmer.

You can make a difference

Earth's climate has been changing constantly throughout its 5-billion-year history. Sometimes, the climate has warmed so that the oceans have risen and covered much of the Earth and cooled so that much of the planet was encased under ice and covered

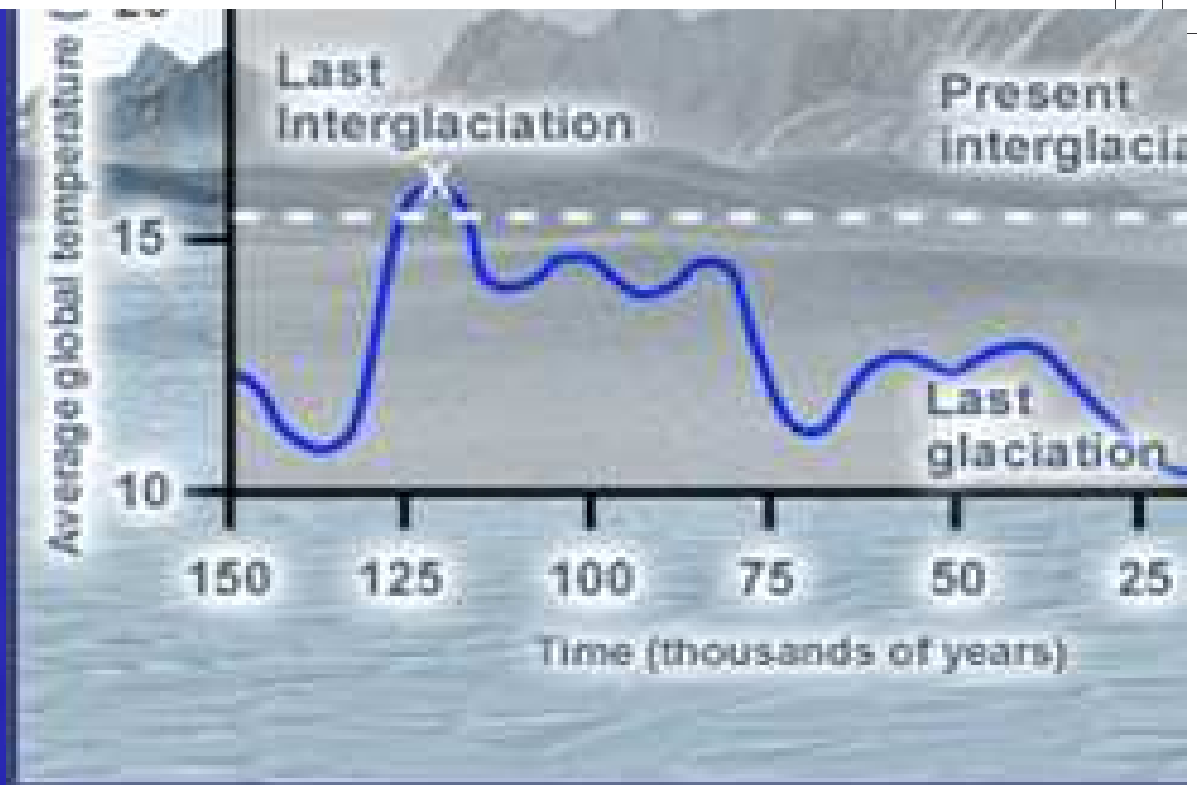




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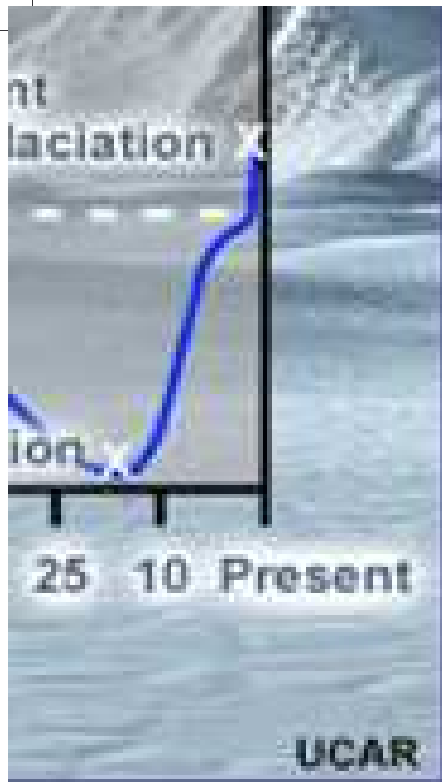
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Rising Sea Level: have you ever built a sandcastle on a beach, close to the ocean on wet sand? If you have, you probably know that the sandcastle won't last very long. Chances are the waves will wash away the sandcastle soon as the tide comes in. The water goes higher on the beach when the tide comes in. At most shores throughout the world, two high tides and two low tides occur each day. But now the level of the sea is rising, so high tides are higher than they were before. Over the last 100 years, the level of the sea has risen about 6-8 inches worldwide. When the sea level rises, the tide goes farther up the beach. Scientists think the sea has risen partly because of melting glaciers and sea ice. When some glaciers melt, they release water into the sea and make it higher than it was before. Scientists also think that warmer temperatures in the sea make it rise even more. Heat makes water expand. When the ocean expands, it takes up more space.

What Might Happen? Scientists are not fortune-tellers. They don't know exactly what will happen in the future. But they can use special computer programs to find out what might happen.



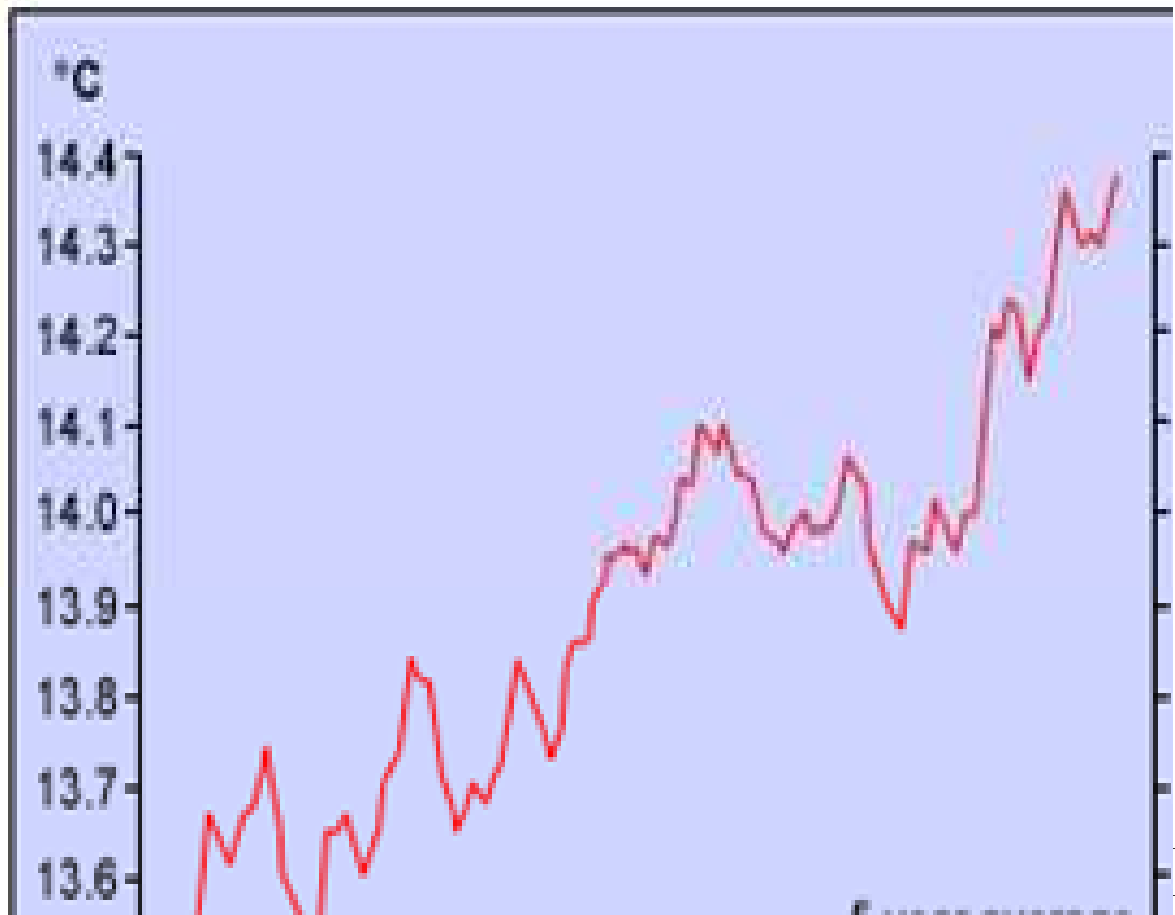
has warmed so that the oceans have risen and covered much of the Earth and cooled so that much of the planet was encased under ice and snow. Each of the changes may seem extreme, but they usually occurred slowly over many thousand years. The Earth has warmed about 1°F in the last 100 years. And the four warmest years of the century all happened in the 1990s. Periods of increased heat from the sun may have helped make the Earth warmer. But many of the world's leading climatologists think that the greenhouse gases people produce are making the Earth warmer, too.

Melting Glaciers: a glacier is a large sheet of ice that moves very, very slowly. Many glaciers in the world are now melting. For example, glaciers are melting in Montana's Glacier National Park. Scientists think the glaciers are melting partly because the Earth is getting warmer.

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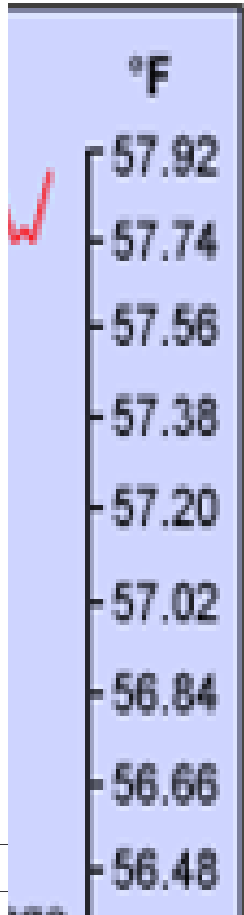
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Global Average Temperature



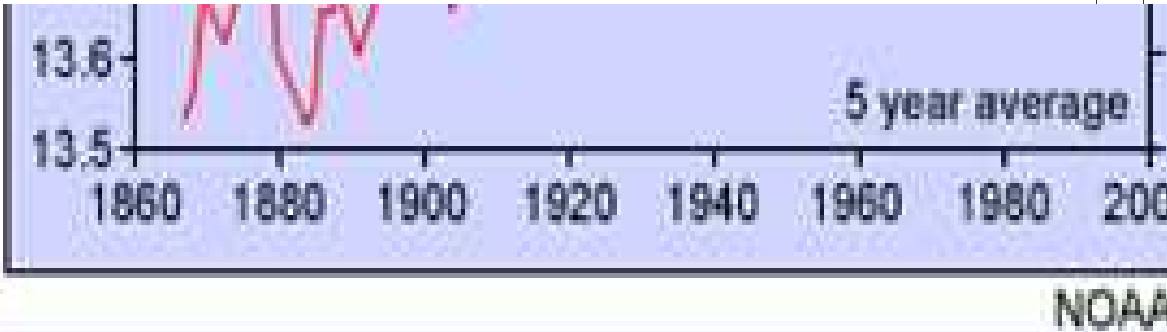
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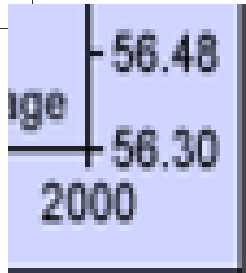


They don't know exactly what will happen in the future. But they can use special computer programs to find out how the climate may change in the years ahead. And computer programs tell us that the Earth may continue to get warmer. Together, the melting glaciers, rising sea levels, and computer models provide some good clues. They tell us that the Earth's temperature will probably continue to rise as long as we continue increasing the amount of greenhouse gases in the atmosphere.

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Special Thanks to the EF



NOAA/UCAR

to the EPA and UCAR